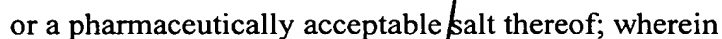


-- 90. A compound having the formula:



X² is -C(O)-NH-;

R is hydrogen or alkyl;

R² and R³ are independently hydrogen, alkyl, cycloalkyl, aryl, or -CH₂-R⁵;

R^5 , in each instance, is one of aryl, aralkyl, alkaryl, cycloalkyl, quinolinyl, pyridyl, indolyl, or $-W-R^6$, where W is a chalcogen and R^6 is alkyl;

where the ring portion of any of said aryl, aralkyl, or alkaryl in R², R³ and R⁵ can be optionally substituted by one or two substituents independently selected from the group consisting of C₁₋₆ alkyl, C₃₋₈ cycloalkyl, C₁₋₆ alkyl(C₃₋₈)cycloalkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, cyano, amino, C₁₋₆ alkylamino, di(C₁₋₆)alkylamino, benzylamino, dibenzylamino, nitro, carboxy, carbo(C₁₋₆)alkoxy, trifluoromethyl, halogen, C₁₋₆ alkoxy, C₆₋₁₀ aryl, C₆₋₁₀ aryl(C₁₋₆)alkyl, C₆₋₁₀ aryl(C₁₋₆)alkoxy, hydroxy, C₁₋₆ alkylthio, C₁₋₆ alkylsulfinyl, C₁₋₆ alkylsulfonyl, C₆₋₁₀ arylthio, C₆₋₁₀ arylsulfinyl, C₆₋₁₀ arylsulfonyl, C₆₋₁₀ aryl, C₁₋₆ alkyl(C₆₋₁₀)aryl, and halo(C₆₋₁₀)aryl;

A1
cancel

Z^1 and Z^2 are independently one of hydroxy, alkoxy, or aryloxy, or together Z^1 and Z^2 form a moiety derived from a dihydroxy compound having at least two hydroxy groups separated by at least two connecting atoms in a chain or ring, said chain or ring comprising carbon atoms, and optionally, a heteroatom or heteroatoms which can be N, S, or O; and
A is zero.

91. A compound of claim 90, wherein:

P is one of quinolinecarbonyl, pyridinecarbonyl, quinolinesulfonyl, quinoxalinecarbonyl, quinoxalinesulfonyl, pyrazinecarbonyl, pyrazinesulfonyl, furancarbonyl, furansulfonyl or N-morpholinylcarbonyl;

A is zero;

X^2 is $-C(O)-NH-$;

R is hydrogen or C_{1-8} alkyl;

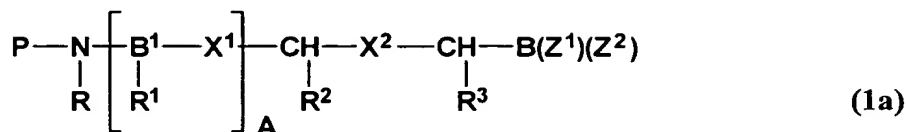
R^2 and R^3 are each independently one of hydrogen, C_{1-8} alkyl, C_{3-10} cycloalkyl, C_{6-10} aryl, or $C_{6-10}ar(C_{1-6})$ alkyl; and

Z^1 and Z^2 are both hydroxy, C_{1-6} alkoxy, or C_{6-10} aryloxy, or together Z^1 and Z^2 form a moiety derived from a dihydroxy compound selected from the group consisting of pinacol, perfluoropinacol, pinanediol, ethylene glycol, diethylene glycol, 1,2-cyclohexanediol, 1,3-propanediol, 2,3-butanediol, glycerol or diethanolamine.

92. The compound of claim 91, wherein P is 2-pyrazinecarbonyl, 8-quinolinesulfonyl or N-morpholinoyl.

19
93.

A compound having the formula:



or a pharmaceutically acceptable salt thereof;

wherein

P is $\text{R}^7-\text{C}(\text{O})-$ and R^7 is pyrazinyl;

X^2 is $-\text{C}(\text{O})-\text{NH}-$;

R is hydrogen or alkyl;

R^2 and R^3 are independently hydrogen, alkyl, cycloalkyl, aryl, or $-\text{CH}_2-\text{R}^5$;

R^5 , in each instance, is one of aryl, aralkyl, alkaryl, cycloalkyl, or $-\text{W}-\text{R}^6$, where W is a chalcogen and R^6 is alkyl;

where the ring portion of any of said aryl, aralkyl, or alkaryl in R^2 , R^3 and R^5 can be optionally substituted by one or two substituents independently selected from the group consisting of C_{1-6} alkyl, C_{3-8} cycloalkyl, C_{1-6} alkyl(C_{3-8})cycloalkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, cyano, amino, C_{1-6} alkylamino, di(C_{1-6})alkylamino, benzylamino, dibenzylamino, nitro, carboxy, carbo(C_{1-6})alkoxy, trifluoromethyl, halogen, C_{1-6} alkoxy, C_{6-10} aryl, C_{6-10} aryl(C_{1-6})alkyl, C_{6-10} aryl(C_{1-6})alkoxy, hydroxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} alkylsulfonyl, C_{6-10} arylthio, C_{6-10} arylsulfinyl, C_{6-10} arylsulfonyl, C_{6-10} aryl, C_{1-6} alkyl(C_{6-10})aryl, and halo(C_{6-10})aryl;

Z^1 and Z^2 are independently one of hydroxy, alkoxy, or aryloxy, or together Z^1 and Z^2 form a moiety derived from a dihydroxy compound having at least two hydroxy groups

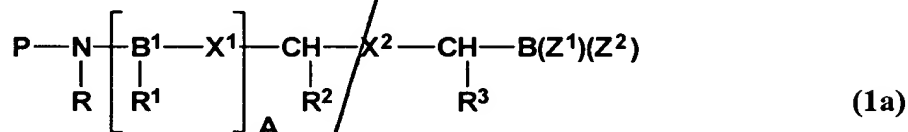
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separated by at least two connecting atoms in a chain or ring, said chain or ring comprising carbon atoms, and optionally, a heteroatom or heteroatoms which can be N, S, or O; and

A is zero.

94. A compound having the formula:



or a pharmaceutically acceptable salt thereof;

wherein

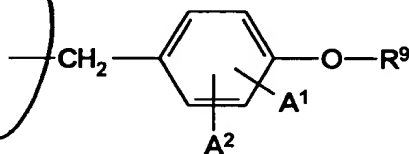
A is zero;

P is one of $\text{R}^7-\text{C}(\text{O})-$, or R^7-SO_2- , $\text{R}^7-\text{NH}-\text{C}(\text{O})-$ or $\text{R}^7-\text{O}-\text{C}(\text{O})-$;

R^7 is one of quinolinyl, quinoxaliny, pyridyl, pyrazinyl, furanyl or pyrrolyl, or when P is $\text{R}^7-\text{C}(\text{O})-$, R^7 can also be N-morpholinyl;

X^2 is $-\text{C}(\text{O})-\text{NH}-$

R^2 is:



where

A^1 and A^2 are independently one of hydrogen, C_{1-6} alkyl, halogen, monohalo (C_{1-6}) alkyl or trifluoromethyl;

110

Al
Case
R⁹ is one of hydrogen, C₁₋₈alkyl, phenyl, benzyl, phenethyl or pyridylmethyl;

R is hydrogen or alkyl;

R³ is C₁₋₆alkyl; and

Z¹ and Z² are both hydroxy, C₁₋₆alkoxy, or C₆₋₁₀aryloxy, or together Z¹ and Z² form a moiety derived from a dihydroxy compound selected from the group consisting of pinacol, perfluoropinacol, pinanediol, ethylene glycol, diethylene glycol, 1,2-cyclohexanediol, 1,3-propanediol, 2,3-butanediol, glycerol or diethanolamine. --

Kindly amend claims 2, 5, 11-18, 20-24 and 63-66 as follows:

///
Kindly amend claims 2, 5, 11, 13, 14, 15, 16, 20, 21 and 23, line 1 of each claim, by deleting "claim 1" and inserting -- claim 90 -- therefor.

AD
~~12.~~ (amended)

The compound of claim [1] ~~90~~, wherein:

[R¹, at each occurrence, and] R² and R³ are each independently one of hydrogen, C₁₋₈alkyl, C₃₋₁₀cycloalkyl, or C₆₋₁₀aryl, [a 5-, 6-, 9- or 10- membered heteroaryl group,] or -CH₂-R⁵;

R⁵, in each instance, is one of C₆₋₁₀aryl, C₆₋₁₀ar(C₁₋₆)alkyl, C₁₋₆alk(C₆₋₁₀)aryl, C₃₋₁₀cycloalkyl, C₁₋₈alkoxy, or C₁₋₈alkylthio [or a 5-, 6-, 9- or 10- membered heteroaryl group];

where the ring portion of any of said aryl, aralkyl, or alkaryl [or 5-, 6-, 9- or 10- membered heteroaryl] groups of [R¹,] R², R³ and R⁵ can be optionally substituted by one or two substituents independently selected from the group consisting of C₁₋₆alkyl, C₃₋₈cycloalkyl, C₁₋₆alkyl(C₃₋₈)cycloalkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, cyano, amino, C₁₋₆alkylamino,

AS
Cater

di(C₁₋₆)alkylamino, benzylamino, dibenzylamino, nitro, carboxy, carbo(C₁₋₆)alkoxy, trifluoromethyl, halogen, C₁₋₆alkoxy, C₆₋₁₀aryl, C₆₋₁₀aryl(C₁₋₆)alkyl, C₆₋₁₀aryl(C₁₋₆)alkoxy, hydroxy, C₁₋₆alkylthio, C₁₋₆alkylsulfinyl, C₁₋₆alkylsulfonyl, C₆₋₁₀arylthio, C₆₋₁₀arylsulfinyl, C₆₋₁₀arylsulfonyl, C₆₋₁₀aryl, C₁₋₆alkyl(C₆₋₁₀)aryl, and halo(C₆₋₁₀)aryl.

A3
Sub
B3

17. (amended) The compound of claim [1] 90, wherein R² is one of isobutyl, 1-naphthylmethyl, 2-naphthylmethyl, 3-pyridylmethyl, 2-pyridylmethyl, 6-quinolinylmethyl, 3-indolylmethyl, benzyl, 4-fluorobenzyl, 4-hydroxybenzyl, [4-(2'-pyridylmethoxy)benzyl,] 4-(benzyloxy)benzyl, benzyl, naphthylmethyl or phenethyl.

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18. (amended) The compound of claim [1] 90, wherein Z¹ and Z² are independently one of [C₁₋₆alkyl,] hydroxy, C₁₋₆alkoxy, or C₆₋₁₀aryloxy.

A4
Sub
B4

22. (amended) The compound of claim [1] 90, wherein:
P is one of 8-quinolinecarbonyl, 8-quinolinesulfonyl, 2-quinoxalinecarbonyl, 2-quinoxalinesulfonyl, 2-pyrazinecarbonyl, 2-pyrazinesulfonyl, 3-pyridinecarbonyl, 3-pyridinesulfonyl, 3-furancarbonyl, 3-furansulfonyl or N-morpholinecarbonyl;

A is zero;

X² is -C(O)-NH-;

R is hydrogen or C₁₋₈ alkyl;

R³ is isobutyl;

R² is one of isobutyl, 1-naphthylmethyl, 2-naphthylmethyl, 3-pyridylmethyl, 2-pyridylmethyl, 6-quinolinylmethyl, 3-indolylmethyl, benzyl, 4-fluorobenzyl,

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4-hydroxybenzyl, [4-(2'-pyridylmethoxy)benzyl,] 4-(benzyloxy)benzyl, benzylnaphthylmethyl or phenethyl; and

A4
OK
Z¹ and Z² are independently one of hydroxy, C₁₋₆alkoxy, C₆₋₁₀aryloxy, or together Z¹ and Z² form a moiety derived from a dihydroxy compound selected from the group consisting of pinacol, perfluoropinacol, pinanediol, ethylene glycol, diethylene glycol, 1,2-cyclohexanediol, 1,3-propanediol, 2,3-butanediol, glycerol or diethanolamine.

A5
18
24 (amended) The compound [of claim *17* 23, wherein said compound is] *N*-(2-pyrazine)carbonyl-L-phenylalanine-L-leucine boronic acid, or a [an isostere,] pharmaceutically acceptable salt or boronate ester thereof.

A6
20
63 (amended) A pharmaceutical composition, comprising a compound of [claims 1, 25, 33, 43, 51, 58 or 61,] *claim 90* *1* or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier or diluent.

21
64 (amended) A pharmaceutical composition, comprising a compound of [claims 22, 28, 41, 49, 55, 60 and 62] *claim 93* *19* or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier or diluent.

[
65. (amended) A pharmaceutical composition, comprising a compound of [claims 23, 32, 42, 50, 56 and 57] *claim 94* *18* or a [an isostere,] pharmaceutically acceptable salt [or boronate ester] thereof, and a pharmaceutically acceptable carrier or diluent.